# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE Before the Board of Patent Appeals and Interferences

Inventor:

Frank Dumont

Application No.:

10/521,385

Filed:

January 18, 2005

Title:

Video Apparatus

Examiner:

Brian P. Yenke

Art Unit:

2622

#### **APPEAL BRIEF**

May It Please The Honorable Board:

Appellants initiate a new appeal in accordance with 37 CFR 41.31 in response to the Final Rejection, dated January 29, 2009, of claims 1-9 of the above-identified application. The fee of five hundred forty dollars (\$540.00) for filing this Brief pursuant to 37 CFR 41.20(b)(2) is to be charged to Deposit Account No. 07-0832. Enclosed is a single copy of this Brief.

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Appellants do not request an oral hearing.

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Date:

#### I. REAL PARTY IN INTEREST

The real party in interest of Application Serial No. 10/521,385 is the Assignee of record:

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#### II. RELATED APPEALS AND INTERFERENCES

There are currently, and have been, no related Appeals or Interferences regarding Application Serial No. 10/521,385.

#### III. STATUS OF THE CLAIMS

Claims 1-9 are rejected and the rejection of claims 1-9 is appealed.

#### IV. STATUS OF AMENDMENTS

All amendments were entered and are reflected in the claims included in Appendix I.

#### V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 provides a video apparatus. A digital encoder receives a first analogue signal with ancillary information in a given time window and generating on an output a digital stream based at least partly on the first analogue signal (FIG. 1, ref. A1 and 4, page 2, lines 32-36, page 3, lines 1-3). A digital decoder at least connectable to the output generates a second analogue signal from the digital stream at least when being connected to the output (FIG. 1, ref. 8 and A2, page 3, lines 30-34). Control means determine the occurrence of the time window and correspondingly generating a control signal (FIG. 1, page 3, lines 1-14). Selecting means selectively output, based on the control signal, the first analogue signal, when the time window occurs, and otherwise the second analogue signal (FIG. 1, ref. 7, 8, and 10, page 3, lines 21-34). The digital decoder includes means for synchronising the second analogue signal to the first analogue signal (FIG. 1, ref. 8 and 12, page 3, lines 35-37, page 4, lines 1-2).

Dependent claim 2 includes all the features of claim 1, along with the means for synchronizing the second analogue signal to the first analogue signal coupled to a synchronization separator receiving the first analogue signal on an input (Page 4, lines 3-9).

Dependent claim 3 includes all the features of claim 1, along with the control means using a first signal which is high only during periodical predetermined time intervals (Page 4, lines 31-34).

Dependent claim 4 includes all the features of claim 3, along with the feature where the first analogue signal is a CVBS signal and where the first signal is high during predetermined lines of the first analogue signal (Page 4, lines 31-34).

Dependent claim 5 includes all the features of claim 3, along with the feature where the control signal is generated by a combination of the first signal and of a second periodical signal corresponding to active parts of the first analogue signal (Page 4, lines 31-34).

Dependent claim 6 includes all the features of claim 5, along with the feature where the first analogue signal is a CVBS signal, where the first signal is high during predetermined lines of the first analogue signal and where the second periodical signal is high during a determined part of each line (Page 3, lines 1-14).

Dependent claim 7 includes all the features of claim 1, along with the feature where the digital encoder and the digital decoder are coupled via a selector coupled to a medium interface (Page 3, lines 14-20).

Dependent claim 8 includes all the features of claim 1, along with the feature where the selecting means are coupled to an output of the video apparatus connectable to a display (Page 4, lines 35-37, page 5, lines 1-2).

Independent claim 9 provides a video apparatus. A digital encoder receives a first analogue signal and generates on an output a digital stream based on the first analogue signal

((FIG. 1, page 2, ref. A1 and 4, lines 32-36, page 3, lines 1-3). A digital decoder receives the digital stream and generates a second analogue video signal based on the digital stream and synchronized with the first analogue signal (FIG. 1, ref. A2 and 8, page 3, lines 35-37, page 4, lines 1-2). The digital decoder includes means for synchronizing the second analogue signal to the first analogue signal (FIG. 1, ref. 20, 22, A1, and A2, page 3, lines 35-37, page 4, lines 1-2).

#### VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over EP-1128673 (Applicant's Admitted Prior Art (AAPA)) in view of Dean et al., US 5,914,757.

#### VII. ARGUMENT

#### Overview of the Cited References

AAPA describes a video apparatus having a first, second and third circuit. The first circuit generates a first baseband analog video signal on a first output. The second circuit is connectable to the first output and can digitize the first baseband analog video signal and process and output a corresponding digital stream on a second output. The second output is connectable to the third circuit generating on a third output a second baseband analog video signal on the basis of the digital stream. (See Abstract)

Dean describes a slow Phase Locked Loop (PLL) that is utilized to prevent an abrupt change to a video display containing multiple images, when the source of the synchronization is changed. Such displays include Picture in Picture (PIP) television systems and computer displays. By appropriate buffering and memory management, visual disruptions can be minimized by slowly synchronizing the display synchronization signals to the new synchronization source. The slow synchronization also produces a less disruptive visual image when the source, or channel, of a single image display is changed, and allows for smooth visual transitions on displays having inertial elements, such as color wheels. (See Abstract)

#### Rejection of claims 1-9 under 35 U.S.C. 103(a)

Reversal of the rejection of claims 1-9 under 35 U.S.C. § 103(a) as being unpatentable over EP-1128673 (Applicant's Admitted Prior Art (AAPA)) in view of Dean et al., US 5,914,757 is respectfully requested because the Examiner makes crucial misinterpretations of the references. The rejection erroneously states that claims 1-9 are unpatentable over AAPA in view of Dean.

#### CLAIM 1, AND 3-8

Independent claim 1 provides a video apparatus. A digital encoder receives a first analogue signal with ancillary information in a given time window and generates on an output a digital stream based at least partly on the first analogue signal. A digital decoder is at least connectable to the output and generates a second analogue signal from the digital stream at least when being connected to the output. Control means determine the occurrence of the time window and correspondingly generates a control signal. Selecting means selectively output, based on the control signal, the first analogue signal, when the time window occurs, and otherwise, the second analogue signal. The digital decoder includes means for synchronising the second analogue signal to the first analogue signal.

The Office Action asserts that AAPA describes "a digital encoder receiving a first analogue signal with ancillary information in a given time window and generating on an output a digital stream based at least partly on the first analogue signal" as recited in claim 1 of the present arrangement. Applicant respectfully disagrees. AAPA describes "[a] digital encoder 116 [that] receives the analog signal from the analog source 112 and outputs a digital stream" (paragraph [0022]). However, nowhere in AAPA is there a suggestion or disclosure of "ancillary information" or the detection of such information in "a given time window." AAPA describes an analog and digital source, where "[t]he analog source 112 could also be for instance the output of a conventional analog VCR" (paragraph [0020]). "The digital source 114 can be a digital tuner receiving from an antenna or a cable-link a video signal which is digitally coded for transmission, for instance according to the MPEG-II format" (paragraph [0021]). Contrary to the present claimed arrangement, AAPA does not explicitly or implicitly disclose or suggest that "a first analogue signal" is received "with ancillary information…in a given time window." Thus,

AAPA neither discloses nor suggests "a digital encoder receiving a first analogue signal with ancillary information in a given time window and generating on an output a digital stream based at least partly on the first analogue signal" as recited in claim 1 of the present arrangement. In addition, AAPA also neither discloses nor suggests "control means for determining the occurrence of said time window and correspondingly generating a control signal" as recited in claim 1 of the present arrangement because AAPA does not disclose or suggest a "time window" and consequently cannot detect the occurrence of a "time window."

AAPA also neither discloses nor suggests "selecting means for selectively outputting, based on said control signal, the first analogue signal, when said time window occurs, and otherwise, the second analogue signal" as recited in claim 1 of the present arrangement.

Nowhere in either AAPA, or in the Office Action, is there an indication that AAPA could disclose or suggest "selecting means for selectively outputting, based on said control signal, the first analogue signal, when said time window occurs, and otherwise, the second analogue signal." Thus, AAPA neither discloses nor suggests "selecting means for selectively outputting, based on said control signal, the first analogue signal, when said time window occurs, and otherwise, the second analogue signal" as recited in claim 1 of the present arrangement.

The Office Action concedes that AAPA does not explicitly recite "synchronising the second analogue signal to the first analogue signal" as recited in claim 1 of the present arrangement. However, the Office Action asserts that Dean describes the aforementioned feature. Applicant respectfully disagrees.

Dean describes the synchronization of analog signals using vertical and horizontal sync signals (Figure 2). However, the synchronization performed in Dean is not the same as the present claimed arrangement, which synchronizes "the second analogue signal to the first analogue signal" based upon the successive steps of converting an analog signal to a digital signal and then converting the digital signal to an analog signal. The present claimed arrangement provides "a first analogue signal with ancillary information in a given time window and generating on an output a digital stream based at least partly on the first analogue signal." A digital decoder then "includes means for synchronising the second analogue signal to the first

analogue signal." In contrast, Dean only synchronizes signals after the analog signals are converted to digital signals via an A/D converter block (Figure 4). Thus, Dean, like AAPA, neither discloses nor suggests "synchronising the second analogue signal to the first analogue signal" as recited in claim 1 of the present arrangement.

The combination of AAPA and Dean, similar to the individual systems, would also not disclose or suggest "a digital encoder receiving a first analogue signal with ancillary information in a given time window and generating on an output a digital stream based at least partly on the first analogue signal" and "control means for determining the occurrence of said time window and correspondingly generating a control signal" as recited in claim 1 of the present arrangement. The combination of AAPA and Dean also neither disclose nor suggest "selecting means for selectively outputting, based on said control signal, the first analogue signal, when said time window occurs, and otherwise, the second analogue signal, wherein the digital decoder includes means for synchronising the second analogue signal to the first analogue signal" as recited in claim 1 of the present arrangement. A combination of AAPA and Dean would only yield a system containing a digital decoder capable of receiving an analog signal and output a digital signal. A second analog signal may also be converted to a digital signal through an A/D converter. The two signals may also be synchronized with one another. However, synchronization can only occur after the signals are converted to digital signals. Furthermore, the combined system would not be concerned with a given "time window." In addition, while the combined system may describe a digital decoder, this decoder would not be capable of synchronizing "the second analogue signal to the first analogue signal" since the combined system is only capable of synchronizing signals already converted from analog to digital. Thus, the combination of AAPA and Dean, similar to the individual systems, neither discloses nor suggests "a digital encoder receiving a first analogue signal with ancillary information in a given time window and generating on an output a digital stream based at least partly on the first analogue signal" and "control means for determining the occurrence of said time window and correspondingly generating a control signal" as recited in claim 1 of the present arrangement. The combination of AAPA and Dean, similar to the individual systems, further neither discloses nor suggests "selecting means for selectively outputting, based on said control signal, the first analogue signal, when said time window occurs, and otherwise, the second analogue signal,

wherein the digital decoder includes means for synchronising the second analogue signal to the first analogue signal" as recited in claim 1 of the present arrangement. Therefore, it is respectfully submitted that the rejection to claim 1 is satisfied and should be withdrawn.

Claims 3-8 are dependent on claim 1 and are considered patentable for the reasons discussed above with respect to claim 1. Therefore, it is respectfully submitted that the rejection to claims 3-8 is satisfied and should be withdrawn.

#### CLAIM 2

Claim 2 is dependent on claim 1 and is considered patentable for the reasons discussed above with respect to claim 1. Claim 2 is further considered patentable as neither AAPA nor Dean, taken alone or in combination with one another, discloses or suggests "the means for synchronising the second analogue signal to the first analogue signal are coupled to a synchronisation separator receiving the first analogue signal on an input" as recited in claim 2 of the present arrangement. As discussed regarding claim 1, Dean is only capable of performing synchronization of signals for digital signals. In addition, both AAPA and Dean do not disclose or suggest "means for synchronising the second analogue signal to the first analogue signal...coupled to a synchronisation separator receiving the first analogue signal on an input." Figure 4 of Dean shows "sync control block 420" which "select[s] one of the synchronization signals 371 through 374 for synchronizing the display and memory elements" (col. 10, lines 28-30). The synchronization of the digital signals as performed in Dean is not the same as "means for synchronising the second analogue signal to the first analogue signal are coupled to a synchronisation separator receiving the first analogue signal on an input" as recited in claim 2 of the present arrangement. Thus, AAPA and Dean, taken alone or in combination with one another, neither discloses nor suggests "the means for synchronising the second analogue signal to the first analogue signal are coupled to a synchronisation separator receiving the first analogue signal on an input" as recited in claim 2 of the present arrangement. Therefore, it is respectfully submitted that the rejection to claim 2 is satisfied and should be withdrawn.

#### CLAIM 9

Independent claim 9 provides a video apparatus including a digital encoder and a digital

decoder. The digital decoder receives a first analog signal and generates on an output, a digital stream based on the first analog signal. The digital decoder receives the digital stream and generates a second analog video signal based on the digital stream and synchronized with the first analog signal. The digital decoder synchronizes the second analog signal to the first analog signal.

AAPA neither discloses nor suggests "a digital decoder receiving the digital stream and generating a second analogue video signal based on the digital stream and synchronised with the first analogue signal" as recited in claim 9 of the present arrangement. AAPA describes a "digital encoder 116" which "receives the analog signal from the analog source 112 and outputs a digital stream" (paragraph [0022]). In addition, AAPA also describes an analog and digital source, where "analog source 112 could also be for instance the output of a conventional analog VCR" (paragraph [0020]), and "digital source 114 can be a digital tuner receiving from an antenna or a cable-link a video signal which is digitally coded for transmission, for instance according to the MPEG-II format" (paragraph [0021]). However, AAPA does not implicitly or explicitly disclose or suggest "a digital decoder receiving the digital stream and generating a second analogue video signal based on the digital stream and synchronised with the first analogue signal." Thus, AAPA neither discloses nor suggests "a digital decoder receiving the digital stream and generating a second analogue video signal based on the digital stream and synchronised with the first analogue signal." Thus, a second analogue video signal based on the digital stream and synchronised with the first analogue signal" as recited in claim 9 of the present arrangement.

The Office Action concedes that AAPA does not explicitly recite "synchronising the second analogue signal to the first analogue signal" as recited in claim 9 of the present arrangement. However, the Office Action asserts that Dean describes the aforementioned feature. Applicant respectfully disagrees.

Dean does not provide a way to synchronize an analog and digital signal in the analog domain. Figure 2 of Dean, which is cited by the Office Action, shows synchronization of two analog video signals. However, Figure 2 of Dean neither discloses nor suggests "a digital encoder receiving a first analogue signal and generating on an output a digital stream based on the first analogue signal" as recited in claim 9 of the present arrangement. Additionally, Figure 4

of Dean shows a "multiple input system" where the input channels "may each have a different format." (col. 10, lines 20-22). However, analog signals 463 and 464 of Figure 4 are converted into digital signals via the A/D converter block. Only after this conversion takes place can the digital signals be synchronized. This is wholly unlike, and contrary to, the present claimed arrangement which provides for "a digital decoder receiving the digital stream and generating a second analogue video signal based on the digital stream and synchronised with the first analogue signal, wherein the digital decoder includes means for synchronising the second analogue signal to the first analogue signal." Thus, Dean, like AAPA, neither discloses nor suggests "synchronising the second analogue signal to the first analogue signal" as recited in claim 9 of the present arrangement.

A combination of AAPA and Dean, similar to the individual systems, also neither discloses nor suggests any of the aforementioned features of claim 9 of the present arrangement. A combination of AAPA and Dean would produce a system containing a digital decoder that is capable of receiving an analog signal and output a digital signal. A second analog signal may be converted to a digital signal through an A/D converter. The two signals may be synchronized, but only after both signals have been converted to digital signals. The digital decoder of the combined system of AAPA and Dean, similar to the individual systems, would neither disclose nor suggest "receiving the digital stream and generating a second analogue video signal based on the digital stream and synchronised with the first analogue signal." Thus, the combination of AAPA and Dean, similar to the individual systems, neither discloses nor suggests any of the aforementioned features of claim 9 of the present arrangement. Therefore, it is respectfully submitted that the rejection to claim 9 is satisfied and should be withdrawn.

#### **VIII CONCLUSION**

AAPA, taken alone or in combination with Dean, does not disclose or suggest "a digital encoder receiving a first analogue signal with ancillary information in a given time window and generating on an output a digital stream based at least partly on the first analogue signal" and "control means for determining the occurrence of said time window and correspondingly generating a control signal" as recited in claim 1 of the present arrangement. Furthermore, AAPA, taken along or in combination with Dean, also neither discloses nor suggests "selecting

means for selectively outputting, based on said control signal, the first analogue signal, when said time window occurs, and otherwise, the second analogue signal, wherein the digital decoder includes means for synchronizing the second analogue signal to the first analogue signal" as recited in claim 1 of the present arrangement. As claims 2-8 are dependent on claim 1, these claims are allowable over AAPA, taken alone or in combination with Dean. AAPA, taken alone or in combination with Dean, also does not disclose or suggest "a digital encoder receiving a first analogue signal and generating on an output a digital stream based on the first analogue signal; a digital decoder receiving the digital stream and generating a second analogue video signal based on the digital stream and synchronized with the first analogue signal, wherein the digital decoder includes means for synchronizing the second analogue signal to the first analogue signal" as recited in claim 9 of the present arrangement.

Accordingly it is respectfully submitted that the rejection of claims 1-12 should be reversed.

Respectfully submitted,

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## APPENDIX I - APPEALED CLAIMS

- 1. (Previously Presented) Video apparatus comprising:
- a digital encoder receiving a first analogue signal with ancillary information in a given time window and generating on an output a digital stream based at least partly on the first analogue signal;
- a digital decoder at least connectable to the output and generating a second analogue signal from the digital stream at least when being connected to said output;
- control means for determining the occurrence of said time window and correspondingly generating a control signal;
- selecting means for selectively outputting, based on said control signal, the first analogue signal, when said time window occurs, and otherwise, the second analogue signal,

wherein the digital decoder includes means for synchronising the second analogue signal to the first analogue signal.

- 2. (Previously Presented) Video apparatus according to claim 1, wherein the means for synchronising the second analogue signal to the first analogue signal are coupled to a synchronisation separator receiving the first analogue signal on an input.
- 3. (Previously Presented) Video apparatus according to claim 1, wherein the control means uses a first signal which is high only during periodical predetermined time intervals corresponding to said time window.
- 4. (Previously Presented) Video apparatus according to claim 3, wherein the first analogue signal is a CVBS signal and wherein said first signal is high during predetermined lines of the first analogue signal.
- 5. (Previously Presented) Video apparatus according to claim 3, wherein the control signal is generated by a combination of the first signal and of a second periodical signal corresponding to active parts of the first analogue signal.
- 6. (Previously Presented) Video apparatus according to claim 5, wherein the first analogue signal is a CVBS signal, wherein said first signal is high during predetermined lines of the first analogue signal and wherein said second periodical signal is high during a determined part of each line.

- 7. (Previously Presented) Video apparatus according to claim 1, wherein the digital encoder and the digital decoder are coupled via a selector coupled to a medium interface.
- 8. (Previously Presented) Video apparatus according to claim 1, wherein the selecting means are coupled to an output of the video apparatus connectable to a display.
  - 9. (Previously Presented) Video apparatus comprising:
- a digital encoder receiving a first analogue signal and generating on an output a digital stream based on the first analogue signal;
- a digital decoder receiving the digital stream and generating a second analogue video signal based on the digital stream and synchronised with the first analogue signal,

wherein the digital decoder includes means for synchronising the second analogue signal to the first analogue signal.

# APPENDIX II - EVIDENCE

Applicant does not rely on any additional evidence other than the arguments submitted hereinabove.

## APPENDIX III - RELATED PROCEEDINGS

Applicant respectfully submits that there are no proceedings related to this appeal in which any decisions were rendered.

# APPENDIX IV - TABLE OF CASES

No cited cases.

# APPENDIX V - LIST OF REFERENCES

U.S. Pub. No.	Pub. Date	<u>102(e) Date</u>	<b>Inventors</b>
EP 1128673 A2	August 29, 2001		Chin, et al
5914757	June 22, 1999		Dean, et al

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